

# Architects & Engineers Specification

## S-1608 Digital Snake System

Digital Snake

The digital audio transmission system (Digital Snake) shall consist of at least two modules. The first (Stage Module) shall have 16 XLR inputs and 8 XLR outputs. The second (FOH) Module shall have 16 XLR outputs and 8 XLR inputs. The transmission cable between the Stage Module and the FOH Module shall be a Cat5e or Cat6 cable.

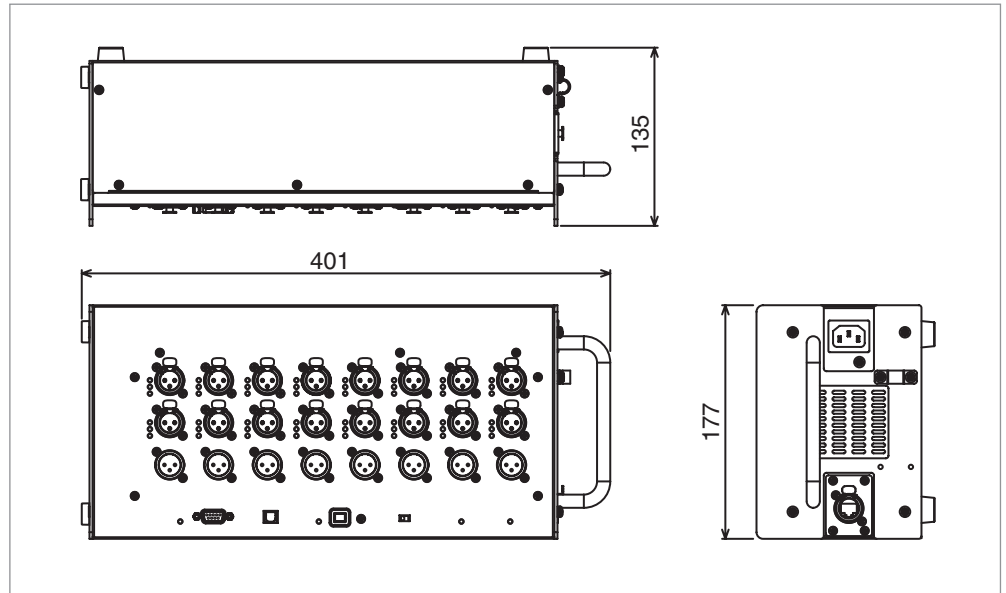
The inputs shall be of very high quality and accept both line and microphone level inputs with individually selectable phantom power. The input gains or trims for the inputs as well as their individually selectable phantom power settings shall be remotely controllable from the Stage or FOH Module using either a hardware remote control unit or a computer. The gain level shall be controllable in 1 dB steps from microphone level to line level. The system shall also offer at least 10 preset memories of different configurations of the input gain and phantom power settings.

The audio protocol shall have a 96 kHz sampling rate, deliver 24-bit audio, and have a protocol latency of 375 microseconds from the stage unit to the FOH unit. The Input Module shall allow the user to duplicate or "split" the input sources to several Output Modules using a fast gigabit Ethernet switching hub.

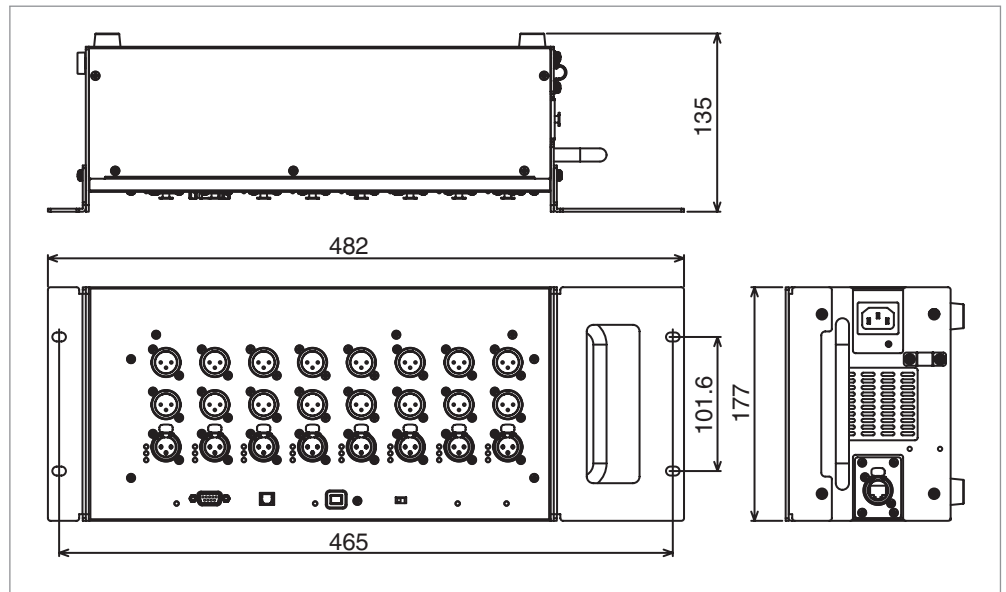
The system shall be the S-1608 Digital Snake System.



### S-1608 / S-0816 Dimensions



### S-1608 / S-0816 with Rack Mount Kit Dimensions



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## S-1608 Digital Snake System

Digital Snake

### S-1608 / S-0816 Main Specifications

Number of Channels	S-1608 : 16 in 8 out S-0816 : 8 in 16 out
AD and DA Conversion	24 bit / 96 kHz (auto-switchable to 44.1kHz & 48kHz)
Frequency Response	-2 dB / +0 dB (@ +4 dBu, 20 Hz to 20 kHz)
Total Harmonic Distortion + Noise	0.05 % or less (Pad: On, Input Gain: +4 dBu, 22Hz to 20 kHz)
Dynamic Range	110 dB
Cross Talk	-80 dB or less (Input Gain: +4 dBu, typ.)
Nominal Input Level	-65 to -10 dBu (PAD: Off), -45 to +10 dBu (PAD: On) (1 dB step, Max. +28 dBu)
PAD	20 dB On/Off
Input Impedance	14 k ohms
Nominal Output Level	+4 dBu, Max. +22 dBu
Output Impedance	600 ohms
Recommended Load Impedance	10 k ohms or greater
Residual Noise Level (IHF-A, typ.)	-80 dBu or less
Equivalent Input Noise Level	S-1608: -128 dB S-0816: -124dB
Network Latency	375 microseconds when using REAC cable only (*1) (AD>REAC>DA Latency: approx 1.2 ms)
Connectors	S-1608 : Analog Input x 16 (XLR type, balanced, phantom power) Analog Output x 8 (XLR type, balanced) Digital Output connector x 1 (Optical type) REAC Connector x 1 (RJ-45 EtherCon type) Remote Connector x 1 (RS-232C, DB-9 type)  S-0816 : Analog Input x 8 (XLR type, balanced, phantom power) Analog Output x 16 (XLR type, balanced) Digital Output connector x 1 (Optical type) REAC Connector x 1 (RJ-45 EtherCon type) Remote Connector x 1 (RS-232C, DB-9 type)
Indicators	POWER Indicator x 1, REAC Indicator x 1, REMOTE Indicator x 1, MUTE ALL OUTPUTS Indicator x 1
Power Supply	AC 115 V, AC 117 V, AC 220 V, AC 230 V, AC 240 V (50/60 Hz)
Power Consumption	45W
Phantom Power	+48 V / 14 mA (each input, remote controlled)
Dimensions	401 (W) x 135 (D) x 177 (H) mm or 15-13/16 (W) x 5-3/8 (D) x 7 (H) inches
Weight	5.5 kg 12 lbs 3 oz
Operation Temperature	0 to +40 degrees Celsius +32 to +104 degrees Fahrenheit
Accessories	Power Cord x 1, REAC Connector Cover x 1, Ferrite Cores x 1 Rubber Foot x 4, Rack Mount Kit x 1, Owner's Manual

\*1: When a REAC Splitter S-4000-SP or a switching hub is used in-line with REAC cables, the network latency will increase by the amount of processing delay introduced by the splitting device itself. The actual delay is dependant upon the specifications of the splitting device.

\* 0 dBu = 0.775 Vrms

